UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 July 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,16-36,39,40,65-79 and 81-93* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,16-36,39,40,65-79 and 81-93* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

1.   This action is responsive to the amendment and remarks filed on July 12, 2010.

2.   Claims 1-14, 16-36, 39-40, 65-79 and 81-93 are presented for examination.

3.   The text of those sections of Title 35, U.S. code not included in this office action can be

found in a prior office action.

Claim Rejections – 35 USC 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
>   (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an
> application for patent by another filed in the United States before the invention by the applicant for patent, except
> that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes
> of this subsection of an application filed in the United States only if the international application designated the
> United States and was published under Article 21(2) of such treaty in the English language.

6.   The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

4.   7.   Claims 1,18, 21-23, 25, 66, 83, 86-87, 89-90 and 93 are rejected under 35

U.S.C. 102(e) as being anticipated by Corts et al, U.S. Patent Application Publication

2002/0095228 (hereinafter Corts).

5.   Corts was cited in the last office action.

6.   As per claim 1, Corts taught the invention substantially as claimed comprising:

A gateway (e.g., multipurpose device such as the black box in combination with IBOC

transmission device), the gateway comprising a processing system ([217]); and

a memory coupled to the processing system ([217]);

Said processing system comprising:

a network inbound queue for the reception of data content and instructions from a content

provider ([0030], [0213], [0275]-[0276], [0337]);

a scheduler for processing said instructions from the content provider to determine

broadcast times and schedule for said data content to be received by digital radio

broadcast receivers of users ([0030], [0232]-[0233], [0235], [0285], [0278], [0318]);

an encoder for encoding said data content for digital radio broadcast transmission

([0197], [0275], [0285]); and

an addressing module for processing said instructions from the content provider for

extracting addressing information that identifies one or more digital radio broadcast

receivers for receiving said over the air transmissions of data content([0237]-[0238],

[0278], [0285]);

the digital radio broadcast system processing the data content to be pushed to the digital

radio broadcast receivers of the users via digital radio broadcast transmission without

user-initiated requests for the data content ([0207]).

7.   As per claim 66, Corts taught the invention as claimed in claim 1 above. Corts further

taught a content provider center configured to communicate with said gateway ([0197], [0213],

[0336]).

8.   As per claims 18, 25, 83, and 89, Corts taught the invention substantially as claimed in

claims 1 and 66 above. Corts further taught data content is in any of the following formats:

binary, plain text, HTML, XML, WML (fig. 1, i.e., binary signal broadcast across airwave), and

wherein said encoded data content is in a digital broadcasting format suitable for reception via a

digital consumer radio receiver (fig. 1, [0021]).

9.   As per claims 21 and 86, Corts taught the invention as claimed in claims 1 and 66 above.

Corts further taught instructions include any of the following: time at which transmission is to

commence, time at which transmission is to cease, or rate at which data content to be transmitted

needs to be repeated ([207], [209], [232]-[239]).

10.   As per claim 22, Corts taught the invention as claimed in claim 1 above. Corts further

taught said gateway receives data content over a network (fig. 3; [0023]).

11.   As per claims 23 and 87, Corts taught the invention as claimed in claims 22 and 66

above. Corts further taught said network comprises any of the following: local area network,

wide area network, wireless network, or Internet ([224], [336]).

12.   As per claim 90, Corts taught the invention substantially as claimed in claim 1 above.

Corts further taught comprising an exciter for receiving the encoded data content from the

gateway and for broadcasting the encoded data content over the air via digital radio broadcast

transmission ([0197]).

13.   As per claim 93, the claim is rejected for the same reason as claims 1 and 90 above.

Claim Rejections – 35 USC 103

14.   Claims 13-14, 16, 78-79 and 81 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Corts.

15.   As per claims 13-14 and 78-79, Corts taught the invention as claimed in claims 1 and 66

above. Although Corts taught wherein said addressing information includes a unique identifier,

said identifier used in targeting said transmitted data content to a specific user agent ([225],

[237], [0285]), however, Corts did not specifically teach said identifier is an URI or a numeric

value. It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to include a numeric value as the identifier because by doing so it would

allow specific recipient to be identified in the network.

16.   As per claims 16 and 81, Corts taught the invention as claimed in claims 1 and 66 above.

Corts did not explicitly teach Turbo Broadcast Layer (TBL) encoder.   It would have been

obvious to one having ordinary skill in the art at the time of the invention was made to include a

TBL encoder or any type of encoder because by doing so it would increase the flexibility of

Cort's system by allowing data to be converted to different formats using different type of

encoder.

17.   Claims 8 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corts in

view of Holur et al, U.S. Patent 7,539,499 (hereinafter Holur).

18.   As per claims 8 and 73, Corts taught the invention as claimed in claims 1 and 66 above.

Although Corts taught a bandwidth module for bandwidth management ([218]), however, Corts

does not teach maintaining queues and prioritizing flows per quality of service (QoS) traffic

attributes while managing resources. Holur taught maintaining queues and prioritizing flows per

quality of service (QoS) traffic attributes while managing resources (col. 5, lines 17-33).

19.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts and Holur because Holur's teaching

would allow Corts's system to schedule transmission based on available bandwidth using

queues.

20.   Claims 5, 20, 26, 39, 65, 85 and 91-92 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Corts in view of Garrity et al, U.S. Patent 6,745,237 (hereinafter Garrity).

21.   Garrity was cited in the last office action.

22.   As per claim 5, Corts taught the invention as claimed as in claim 1 above. Corts did not

teach an authenticator. Garrity taught an authenticator for authenticating a sender of said

instructions (col. 4, lines 46-49).

23.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts, and Garrity because Garrity's teaching

would increase the security of Corts's system to prevent unauthorized sender to utilize their

systems.

24.   As per claims 20 and 85, Corts taught the invention as claimed in claims 1 and 66 above.

Corts did not teach synchronized scheduling. Garrity taught wherein said gateway is networked

for synchronized scheduling with one or more similar gateways (fig. 2; col. 3, lines 62-65).

25.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts, and Garrity because Garrity's teach of

synchronized scheduling would enhance Corts's system by allowing data to be transmitted to a

user in the proper sequence.

26.   As per claims 26, 39, and 65, Corts taught the invention substantially as claimed

comprising:

        receiving at the gateway, data content and instructions from a content provider ([0030],

        [0213], [0275]-[0276], [0337]);

        processing said instructions from the content provider to determine broadcast times for

said data content to be received by a digital radio broadcast receivers of a users ([0030], [0232]-

[0233], [0235], [0285], [0278], [0318]),) and to determine addressing information that identifies

one or more digital radio broadcast receivers for receiving over the air transmissions ([0285]),

the digital radio broadcast system processing the data content to be pushed to the digital radio

broadcast receivers of the users via digital radio broadcast transmission without user-initiated

requests for the data content ([0207]);

        encoding said data content for digital radio broadcast transmission using a processing

system ([0197], [0275], [0285]).

        storing said encoded data content at a memory of the gateway ([0030], [0275).

27.   Corts did not teach authenticating said content provider. Garrity taught authenticating

said content provider (col. 4, lines 46-49).

28.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts, and Garrity because Garrity's teaching

would increase the security of Corts's system to prevent unauthorized sender to utilize their

systems.

29.   As per claim 91-92, Corts and Garrity taught the invention substantially as claimed in

claims 26 and 39 above. Corts further taught comprising broadcasting the encoded data content

over the air via digital radio broadcast transmission using an exciter ([0197]).

30.   Claims 2, 3, and 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Corts in view of Miller, U.S. Patent Application Publication 2003/0055977 (hereinafter Miller).

31.   Miller was cited in the last office action.

32.   As per claims 2 and 67, although Corts taught IBOC enabled devices ([0021]), however,

Corts did not teach profile defining specific data content formats. Miller taught a device profile

database holding profile associated with consumer devices, and each of said profile defining one

or more specific data content formats for said transmission (page 4, paragraph 36).

33.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts, and Miller because Miller's teaching of

device profiles would increase the alertness of their system by providing profiles information

regarding data format and modality that are compatible with the device of the profile.

34.   As per claims 3 and 68, Corts and Miller taught the invention substantially as claimed as

in claims 2 and 67 above. Although, Miller taught identifying said one or more specific data

content formats associated with one or more specific clients (page 4, paragraph 36), however,

Miller did not explicitly teach a request for identifying data content formats.   It would have been

obvious to one having ordinary skill in the art at the time of the invention was made to include a

request for identifying data content format associated with the clients because by doing so it

would increase the alertness of their system by providing profiles information regarding data

format and modality that are compatible with the device of the profile.

35.   Claims 4 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corts in

view of Hirayama, U.S. Patent Application Publication 2006/0069718 (hereinafter Hirayama).

36.   As per claims 4 and 69, Corts taught the invention as claimed as in claims 1 and 66

above. Corts did not teach unique ID associated with sender. Hirayama taught a identification

(ID) processor for extracting a unique ID associated with sender of said received instructions,

assigning a unique ID associated with broadcast transmissions, and storing said unique ID

associated with the sender of said instructions and said unique ID associated with broadcast

transmissions ([0136], [0146], fig. 12)

37.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts and Hirayama because Hirayama's

teaching of unique ID associated with sender would increase the alertness of Corts's system by

allowing the push initiator to be determined according to the identifier embedded in the message.

38.   Corts, and Hirayama's did not explicitly teach push transmissions. It would have been

obvious to one having ordinary skill in the art at the time of the invention was made that

broadcasting can includes push transmission, hence the a unique ID associated with broadcast

will be ID associated with push transmission, in order to allow data to be broadcast to user

without user request.

39.   Claims 9 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corts

and Holur in view of Kadyk et al, U.S. Patent 7,046,691 (hereinafter Kadyk).

40.   Kadyk was cited in the last office action.

41.   As per claims 9 and 74, Corts and Holur taught the invention substantially as claimed in

claims 8 and 73 above. Corts and Holur did not teach active queues and a passive queue. Kadyk

taught an active queue storing data content currently being transmitted (250, fig. 2; col. 9, line

50-col. 10, line 3) and a passive queue storing pushed and pulled data content (230, fig. 2; col. 8,

lines 38-45).

42.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts, Holur and Kadyk because Kadyk

teaching of active queue and passive queue would increase the flexibility of Corts's and Holur's

system by allowing the system to read the message from the queue when the system is ready to

process a new message (col. 8, lines 40-45).

43.   Claims 10, 17, 24, 75, 82, and 88 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Corts in view of Official Notice.

44.   As per claims 10 and 75, Corts taught the invention as claimed in claims 1 and 66 above.

Corts did not teach a cache. "Official Notice" is taken for the concept of a cache for holding data

content to be broadcast is known and accepted in the art. It would have been obvious to one

having ordinary skill in the art at the time of the invention was made to include a cache because

by doing so it would increase the efficiency of the system by allowing frequently requested data

to be stored and quickly accessed.

45.   As per claims 17 and 82, Corts taught the invention as claimed in claims 1 and 66 above.

Corts did not teach different protocols. "Official Notice" is taken for the concept of point-to-

point protocol (PPP), hypertext transfer protocol (HTTP), or wireless access protocol, are well

known in the art.   It would have been obvious to one having ordinary skill in the art at the time

of the invention was made to include different protocol such as HTTP because by doing so it

would increase the functionality of the system by allowing browsers to requests webpage from

web server on the Internet.

46.   As per claims 24 and 88, Corts taught the invention as claimed in claims 1 and 66 above.

Corts did not teach a network database identifying other databases. "Official Notice" is taken for

the concept of network database such as Domain Name System (DNS) server identifying other

databases is known and accepted in the art. It would have been obvious to one having ordinary

skill in the art at the time of the invention was made to include network database such as Domain

Name System (DNS) server because by doing so it would increase the alertness of the system by

providing Internet Protocol address in response to domain name query.

47.   Claims 11 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corts in

view of Marlow, U.S. Patent Application Publication 2003/0046670 (hereinafter Marlow).

48.   Marlow was cited in the last office action.

49.   As per claims 11 and 76, Corts taught the invention as claimed in claims 1 and 66 above.

Corts did not teach precompiled binary data. Marlow taught precompiled binary data for

transmission (page 3, paragraph 36).

50.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts, and Marlow because Marlow's teaching

of precompiled binary data for transmission would increase the user flexibility of Corts's system

by data to be transformed to values appropriate for viewing by the user at a remote location

(page 3, paragraph 36).

51.   Claims 12 and 77 rejected under 35 U.S.C. 103(a) as being unpatentable over Corts in

view of Ellis et al, U.S. Patent Application Publication 2004/0194131 (hereinafter Ellis).

52.   Ellis was cited in the last office action.

53.   As per claims 12 and 77, Corts taught the invention as claimed in claims 1 and 66 above.

Although Corts taught processes information for broadcasting encoded data content ([197],

[0275], [0285]), however, Corts did not teach zone information.   Ellis taught processes

information defining various time zones for broadcasting said encoded data content (page 10,

paragraphs 139 and 140).

54.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts, and Ellis because Ellis teaching of

defining zone information would increase the flexibility of Corts's system by allowing data

content to be presented to a user based on a defined schedule.

55.   Claims 19 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corts in

view of Thompson et al, U.S. Patent 6,907,247 (hereinafter Thompson).

56.   Thompson was cited in the last office action.

57.   As per claims 19 and 84, Corts taught the invention substantially as claimed in claims 1

and 66 above. Corts did not teach a timer for tracking timeout. Thompson taught a timer for

tracking a predefined timeout for which transmission of data content occurs (col. 4, lines 3-19).

58.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts, and Thompson because Thompson's

teaching of a timer for tracking timeout would increase the efficiency of Corts's system by

allowing resources to be released by a user when a timeout period has expired, hence the

released resources can be allocated to other users.

59.   Claims 6-7 and 71-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Corts, and Hirayama in view of Lin et al, U.S. Patent Application Publication 2002/0146016

(hereinafter Lin).

60.   Lin was cited in the last office action.

61.   As per claims 6 and 71, Corts, and Hirayama taught the invention substantially as

claimed as in claims 4 and 69 above. Although Corts taught said broadcast outbound queue

transmitting data content to an external broadcasting network ([30], [0275]), however, Corts did

not teach transmitting data content to said sender of said instructions. Lin taught network

outbound queue transmitting data content to said sender of said received instructions (140, fig. 6;

page 4, paragraph 53).

62.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts, Hirayama, and Lin because Lin's

teaching of queue for transmitting data content to said sender would increase the reliability of

their system by allowing packet to be queue in order to retransmit lost packets (page 4, paragraph

53).

63.   As per claims 7 and 72, Corts, Hirayama and Lin taught the invention substantially as

claimed as in claims 6 and 71 above.   Corts further taught an in-band on-channel (IBOC) digital

radio broadcast transmission (page 13, paragraph 304).

64.   As per claims 27-36 and 40, they fail to define the above and beyond claims (already

rejected claims 2, 3, 10 12-14, 18, 23 and 25).

65.   Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over Corts, and

Hirayama in view of Garrity.

66.   As per claim 70, Corts, and Hirayama taught the invention substantially as claimed in

claim 69 above. Corts, and Hirayama did not teach an authenticator. Garrity taught an

authenticator for authenticating a sender of said instructions (col. 4, lines 46-49).

67.   It would have been obvious to one having ordinary skill in the art at the time of the

invention was made to combine the teachings of Corts, Hirayama, and Garrity because Garrity's

teaching would increase the security of Corts's, and Hirayama's systems to prevent unauthorized

sender to utilize their systems.

68.   Applicant's arguments with respect to claims 1-14, 16-36, 39-40, 65-79 and 81-93, filed

7/12/10 have been considered but they are not persuasive.

69.   In the remarks, applicant argued that:

>   (1)   Corts fails to teach addressing information that identifies one or
>
>   more digital radio broadcast receivers for receiving said over the air
>
>   transmissions of data content.
>
>   (2)   Corts does not an exciter.
>
>   (3)   Corts fails to teach instruction from a content provider for
>
>   extracting addressing information that includes a unique identifier.
>
>   (4)   The rejection of claims 27 and 28 is not proper. Claims 27 and 28
>
>   require the step of "accessing a subscription profile database to identify

one or more specific data content formats associated with one or more

clients."

70.   In response to point (1), Corts teaches formatting and timing directives include codes to

identify the datacast's consumer (0285). Corts further teach datacast elements are rendered by

the user on IBOC receiving device (0283). This means Corts teaches addressing information

(directives) that identifies one or more digital radio broadcast receivers (consumer with IBOC

receiver) for receiving said over the air transmission of data content (receiving datacast).

71.   In response to point (2), Corts teaches receiving data content at a broadcast facility and

broadcasting the data content via IBOC (197).   This means Cort's system must include a part of

a transmitter that generates a modulated signal for broadcasting (i.e., exciter as the part that

generates the modulated signal). It is inherent that this essential part of the transmitter must be

included in order to for the broadcast facility to broadcast data.

72.   In response to point (3), Corts teaches a broadcaster provides rules (content provider

provides instructions) such as timing and formatting (i.e., address information as claimed) (207).

Corts further teach these rules include identifier to identify the listener/customer and broadcast

facilities ([225], [285]).

73.   In response to point (4), for clarification purpose, claim 27 is rejected for the similar

reason as claims 2 and 3. As indicated in the rejection of claims 2 and 3, page 4, paragraph 36 of

the Miller reference teaches identifying the data content formats associated with a client by

accessing a profile database. This means authorization to access the database (i.e., subscription

profile database) must be given in order to access the profile associated with client.

74.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action. Any inquiry concerning this communication or earlier communications

from the examiner should be directed to Philip C Lee whose telephone number is (571)272-3967.

The examiner can normally be reached on 8 AM TO 5:30 PM Monday to Thursday and every

other Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Firmin Backer can be reached on (571) 272-6703. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300. Information

regarding the status of an application may be obtained from the Patent Application Information

Retrieval (PAIR) system. Status information for published applications may be obtained from

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/Philip C Lee/

Primary Examiner, Art Unit 2448